U.S. Fish & Wildlife Service

Polar Bear Harvest Management in Alaska

Alaskan Natives may harvest polar bears for subsistence purposes as outlined under the Marine Mammal Protection Act (MMPA). The U.S. Fish and Wildlife Service (FWS) monitors harvest through local taggers in 15 communities hired through the Marking, Tagging, and Reporting program (MTRP). Taggers gather important information from hunters about polar bears harvested around their community, including the date, location of harvest, and the sex/age and condition of the bear. While taggers assist in obtaining information from hunters, it is the hunter's responsibility to get the skull and hide of harvested bears tagged within 30 days of harvest.

Taggers are supplied with kits that include tools for taking measurements, and a small pre-molar tooth to age the bear, and certificates that include a variety of important information about the harvested bears. Unfortunately, reporting rates are low with the required harvest information being provided for less than 50% of the polar bears harvested in Alaska. The FWS is currently working to improve compliance of harvest reporting and the completeness of information received for harvested bears.

Polar bear hide on a drying rack in Alaska.

ASSESSMENT OF HARVEST DATA

The FWS serves as a conduit for harvest information. We analyze and summarize data provided by taggers and hunters on harvested polar bears and provide this information to co-management partners to assist them in making management decisions. In addition, we work with the U.S. Geological Survey to obtain information on the population dynamics of Southern Beaufort and Chukchi/Bering Seas polar bears through research programs. Data collected from harvest and research are used to:

- ensure that polar bears are available for harvest in the future;
- provide information to co-management partners (i.e. Alaska Nanuuq Commission, Inupiat-Inuvialuit Game Commission, U.S.-Russia Joint Commission) that allows them to evaluate harvest relative to their management agreements and objectives;
- provide information that allows evaluation of the status, trends, and health of polar bear populations.

HARVEST MANAGEMENT OF THE CHUKCHI/BERING SEAS POLAR BEAR POPULATION

On December 9, 2006, Congress signed into law the implementing legislation for the *Agreement between the United States of America and the Russian Federation on the Conservation and Management of the Alaska-Chukotka Polar Bear Population*, originally signed by the U.S. and Russia in 2000. The primary purpose of the *Bilateral Agreement* is to ensure long-term conservation of this population using the best biological information available. Now that implementing legislation is in place, a Joint Commission, consisting of a government and native representative from each country, has been established. The Joint Commission will be responsible for the design, coordination, and evaluation of management and research activities. One benefit of the *Bilateral Agreement* allows both the U.S. and Russia to formally address polar bear harvest issues, including the establishment of hunting quotas with involvement from Native users. High harvest levels, in combination with increasing environmental change in the region, make enactment of the *Bilateral Agreement* a high priority for polar bear conservation.

To address information needs of the Joint Commission, an ad hoc meeting of technical specialists from the U.S. and Russia occurred in Anchorage in 2007 to discuss future management, research, and conservation needs for the Chukchi/Bering Seas polar bear population. We determined that the primary challenge to establishing a sustainable harvest level as called for by the *Bilateral Agreement* is the lack of population information (status and trends). The Joint Commission met in Moscow, Russia in September, 2009, and established a scientific working group to advise their activities, as called for under the *Bilateral Agreement.*

HARVEST MANAGEMENT OF THE SOUTHERN BEAUFORT SEA POLAR BEAR POPULATION

Since 1988, polar bears in the Southern Beaufort Sea have been managed under the Inupiat-Inuvialuit Agreement (between Alaskan North Slope residents and the Inuvialuit Game Council in Canada). This voluntary agreement establishes a harvest quota and calls for management based on sustainable yield. Additionally, the I-I Agreement prohibits hunting using aircraft or large motorized vehicles, and calls for the protection of females with cubs and denning bears.

Recent studies suggest that the Southern Beaufort Sea population may have recently declined and will continue to decline due to reduced sea ice availability. In light of this information, along with a new population estimate of 1500 bears, the current harvest level of 80 bears (40 for Alaska and 40 for Canada) set under the Inupiat-Inuvialuit Agreement appears to be unsustainable. The FWS has recommended a voluntary reduction in harvest for this population. Any potential changes to harvest levels are currently being considered by members of the Inupiat-Inuvialuit Agreement.

HARVEST PATTERNS IN ALASKA

Harvest levels in Alaska have remained stable over the past 20 years in the Southern Beaufort Sea but have declined in the Chukchi/Bering Seas (Figure 1). However, while the Alaskan Chukchi Sea harvest has declined, a considerable, un-quantified illegal harvest of bears from the Chukchi/Bering Seas population is believed to be occurring in Russia. As a result, there is currently concern that harvest levels for both of Alaska's polar bear populations may be unsustainable. Six communities (Barrow, Point Hope, Savoonga, Gambell, Diomede, and Wainwright) harvest 80% of all polar bears harvested in Alaska. Polar bears are harvested in every month except June. Hunters in western Alaska, from Point Lay to St. Lawrence Island, typically harvest bears after December since bears moving southward with advancing pack ice are not available in this area until later in the season. Since 1980, significantly more bears have been harvested in the fall (October - December) in the Southern Beaufort Sea than in the Chukchi/Bering Seas.

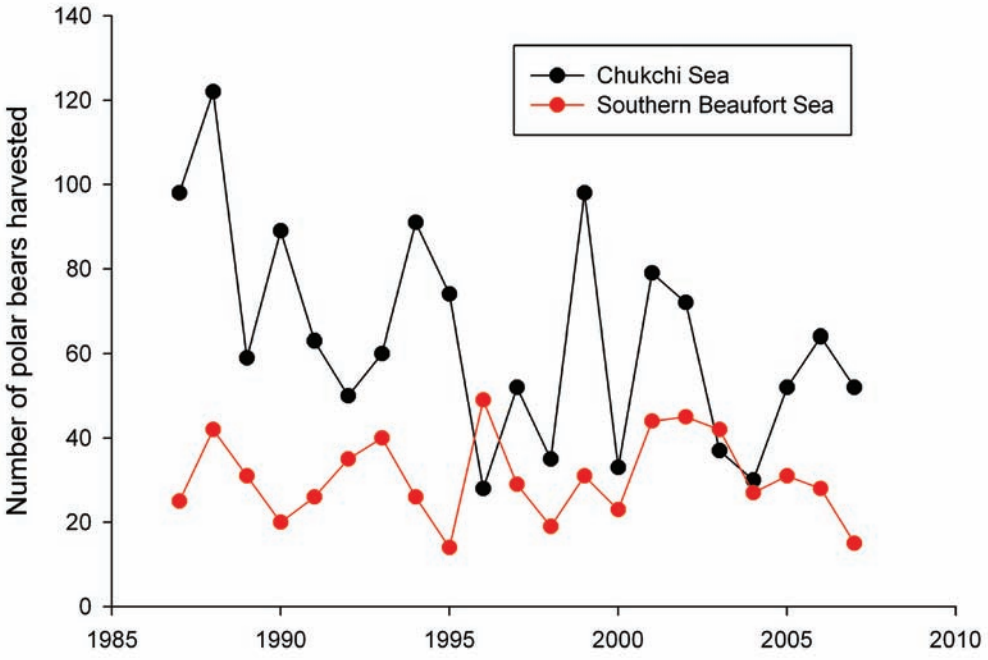

FIGURE 1: *Alaska polar bear harvest, 1985-2007.*

ENSURING SUSTAINABLE HARVEST THROUGH CO-MANAGEMENT AGREEMENTS

The FWS continues to work through our existing co-management agreements with Alaska Natives to address future actions that affect polar bears and polar bear hunting. This includes working with the Alaska Nanuuq Commission (state-wide), the North Slope Borough and Inuvialuit Game Council (Beaufort Sea region) and the Joint Commission formed with Russia under the *Bilateral Agreement* (Chukchi/Bering Seas region).

If populations decrease as a result of changing ice conditions, it may mean that fewer bears will be available for hunting, and that bears may be in poorer condition. To ensure that bear populations are managed to allow for long-term harvest, it is more important than ever to have adequate reporting of harvest, collection of harvest data, and collection of biological samples (e.g.: pre-molar tooth) from harvested bears.

Measuring polar bear skulls helps monitor the health of the population.

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